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Incidence and risk factors for medical device-related pressure ulcers: The first report in this regard in Iran

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Abstract

Few studies, especially among developing countries such as Iran, have been conducted on the incidence and risk factors for medical device-related pressure ulcers (MDRPUs). Given the importance of this issue and the lack of previous studies, the present study aimed to investigate the incidence and risk factors for MDRPUs in Iran. The present descriptive-analytical study was conducted at three hospitals in Qazvin, Iran, from June 1, 2019, to September 1, 2019. Data collection took approximately 3 months from July to September 2019. Sampling was carried out through a convenience sampling method, and the samples consisted of 404 patients. For data collection, a checklist for demographic variables, a checklist for patient-connected medical devices, Braden Scale, Glasgow Coma Scale, National Pressure Ulcer Advisory Panel Pressure Grading Scale, and Nutrition Risk Screening 2002 were used. Of the 404 patients studied, 20.54% (n = 83) developed some degree of MDRPUs. From those, 61 (70.11%) were in stage I, 17 (19.5%) were in stage II, and 9 (10.34%) were in stage III. Among the nine medical devices that caused pressure ulcers, the most commonly reported ones were nasal oxygen tubes (31 cases), oxygen face masks (23 cases), and endotracheal tubes (17 cases). The mean score of Braden Scale ($P = .004$), the mean score of NRS 2002 ($P = .037$), older age ($P = .007$), male gender ($P = .002$), the average length of stay in hospitals ($P = .001$), and having pressure ulcers in body ($P = .025$) significantly increased the possibility of occurring MDRPUs. In the present study, the incidence of MDRPUs was high. Taking the necessary measures into consideration in order to prevent the MDRPUs is essential in Iranian hospitals. Further studies in this regard are strongly recommended.

KEYWORDS

developing countries, incidence, medical devices, pressure injuries, risk factors